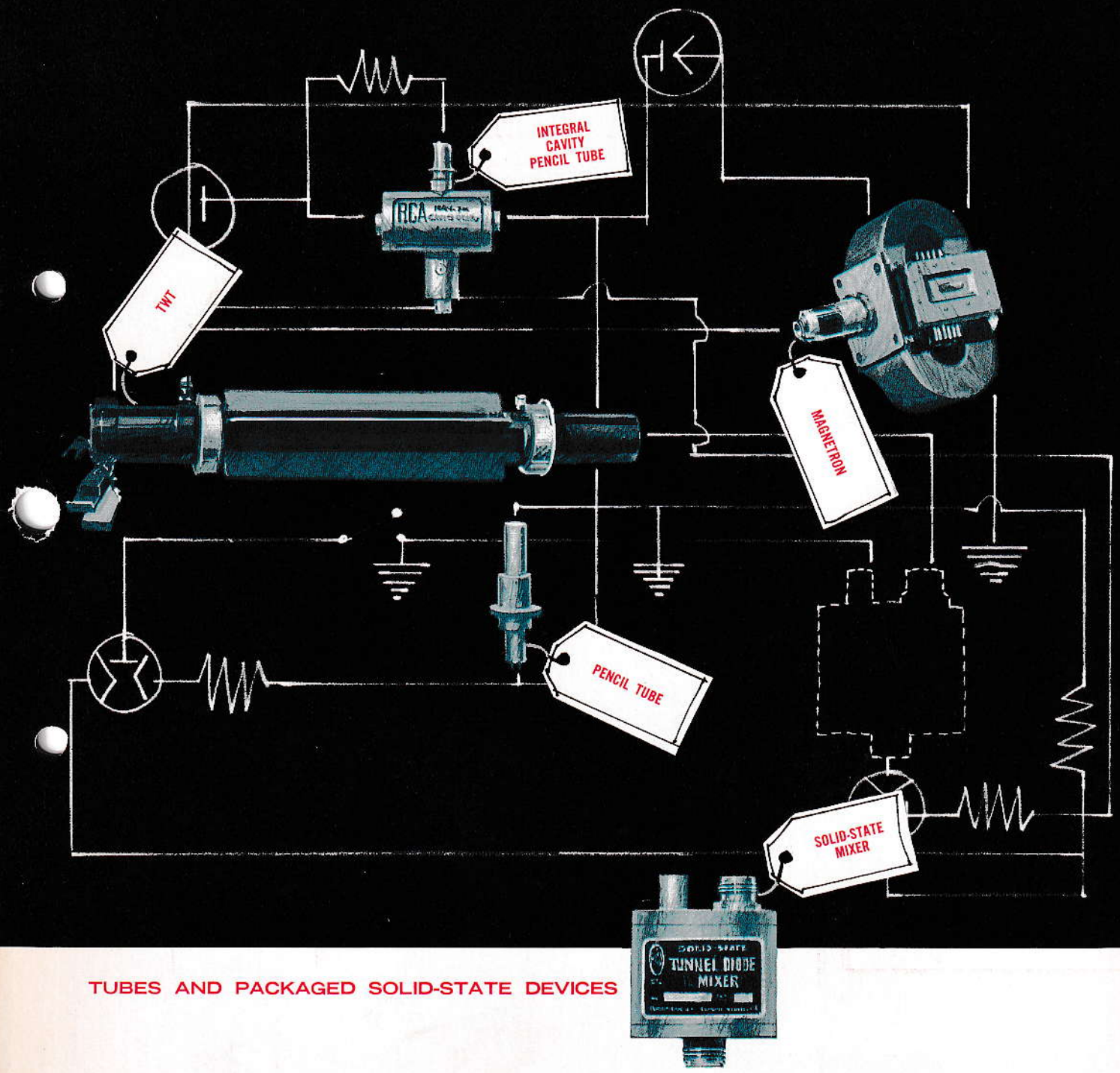
RCA MICROWAVE DEVICES



TUBES AND PACKAGED SOLID-STATE DEVICES

RADIO CORPORATION OF AMERICA

ELECTRONIC COMPONENTS AND DEVICES, HARRISON, N.J.

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RCA TRAVELING-WAVE TUBES

The devices included below are representative examples of our traveling-wave tubes.

LOW-NOISE TYPES
SOLENOID FOCUSING

8379

Type No.■	Frequency Range Gc	Min. Power Output mw	Min. Small-Signal Gain db	Max. Noise Figure db
A1217	1.1-1.4	0.5	20	5
A1207V26	2.19-2.31	1.0	20	5
8379	2.32-2.68	1.0	28	5
6861	2.7-3.5	0.25	20	7
A1207V17	2.7-3.5	1.0	20	5
A1207V29	3.5-4	1.0	25	5

INTERMEDIATE-NOISE TYPES
PERIODIC-PERMANENT-MAGNET FOCUSING—(PPM)

4017

Type No.■	Frequency Range Gc	Min. Power Output mw	Min. Small-Signal Gain db	Max. Noise Figure db
A1210	0.825-1.4	10	25	17
4019V2	1-2	10	28	16
A1211	1.31-2.65	10	24	17
4017	2-4	10	30	16
A1212	3.45-5.61	10	24	17
4020	4-7	10	28	18
A1304	7-11	10	30	10

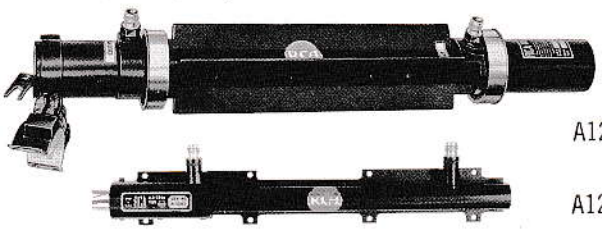
LOW-POWER TYPES (PPM)

7642

A1225

Type No.■	Frequency Range Gc	Min. Power Output Watts	Min. Small-Signal Gain db
A1268	1-2	0.10	25
4021	1-2	1	27
4053	1-2	10	25
7642	1.7-2.3	18	28
4009	2-4	0.01	33
4010	2-4	1	33
A1243	2-4	2	30
A1166V3	2.7-3.5	10	25
A1189	4-7	0.10	30
A1140	8-12	0.01	33
4041	8-12	1	32
A1215	12-18	0.01	30
A1225	12-18	1	30

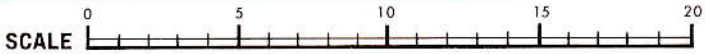
SATELLITE TYPES (PPM)



A1245

A1292

Type No.■	Frequency Range Gc	Min. Power Output Watts	Min. Small-Signal Gain db
A1292	2.2-2.3	11	35
A1245	4.05-4.25	11	33



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RCA SOLID-STATE DEVICES

The products below indicate RCA's capability in packaged solid-state devices.

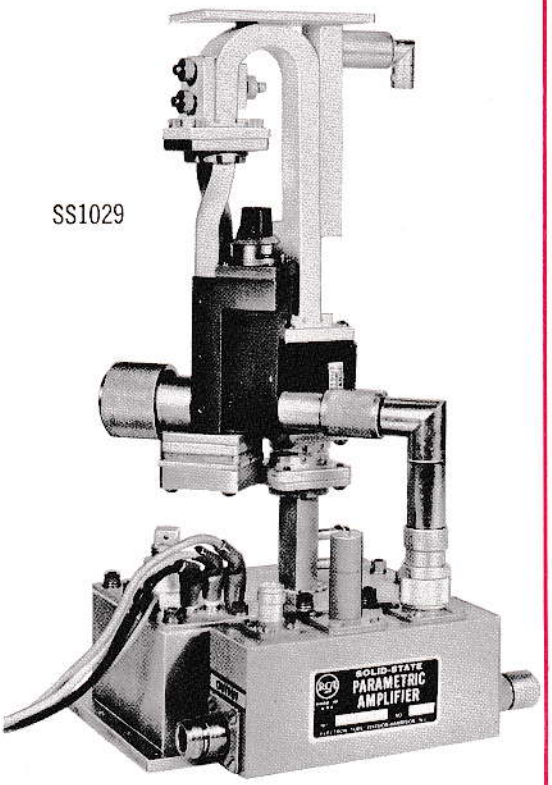
TUNNEL-DIODE AMPLIFIER

SS505

Type No.■	Frequency Gc	Saturated Power Output dbm	Minimum Gain db	Bandwidth Mc	Maximum Noise Figure db	DC Power Input mw
SS505	6	—30	14	400	5	<1

PARAMETRIC AMPLIFIERS

SS1029



Type No.■	Frequency Gc	Saturated Power Output dbm	Minimum Gain db	Bandwidth Mc	Maximum Noise Figure db
SS1027	1.3	—15	15	10	1.5
SS1029	3	—15	15	30	2

SCALE 0 5 Inches

TUNNEL-DIODE OSCILLATORS

SS121

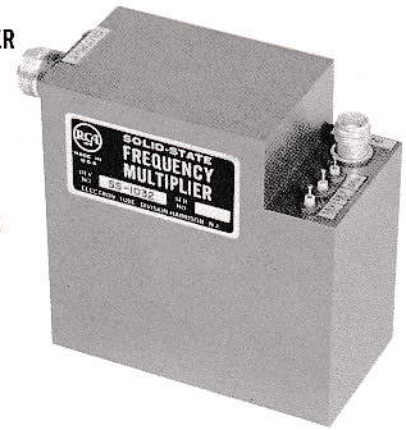
Type No.■	Frequency Gc	Minimum Power Output mw	Typical DC Power Input	
			Volt	Amp.
SS120	1.6	20	0.6	1.4
SS121	6	3	0.55	0.6

TUNNEL-DIODE DOWN CONVERTER

SS504

Type No.■	Frequency Gc		Maximum Power Input dbm	Bandwidth Mc	Maximum Noise Figure db
	Input	Output			
SS504	1.25	0.03	—10	3	5.5

VARACTOR-DIODE FREQUENCY MULTIPLIER WITH TRANSISTOR AMPLIFIER



SS1032

Type No.■	Frequency Gc		Minimum Power Output mw	Typical DC Power Input Watts
	Input	Output		
SS1032	0.105	5.04	300	18

■ Type numbers with prefix A, or SS are developmental types. Each of these numbers identifies a particular laboratory design but the number and the identifying data are subject to change. No obligations are assumed as to future manufacture unless otherwise arranged. Type numbers with suffix V are variants of the prototype.

RCA PENCIL TUBES

Some of the pencil tubes available from RCA are listed below.

TRIODES

6263A

7554

A15288

Type No. ■	Class of Service	Typical Operating Conditions			
		Plate-to-Grid Volts	Driver Power Output Watts	Useful Power Output Watts	Frequency Gc
5876A	Ampl. Osc.	326 252	2 —	5 0.1	0.5 3
5893	Pulsed Osc. Ampl.	1750 peak 330	— 1.9	1200 peak 5.5	3.3 1
6263A	Ampl. Osc.	348 270	2.2 —	7 0.9	0.5 1.7
7552	Ampl.	125	—	16.5 db gain	0.55
7554	Ampl. Osc.	185 203 200	0.2 — —	1.4 1.3 0.03	1 1 5
4028	Osc.	1000 peak	—	250 peak	3.3
A15288	Osc. Pulsed Osc.	260 3000 peak	— —	0.2 1000 peak	5 5

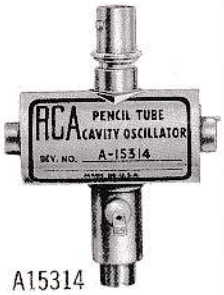
TRIODES—INTEGRAL-CAVITY OSCILLATORS

A15132

Type No. ■	Typical Operating Conditions		
	Plate Volts	Useful Power Output Watts	Frequency Gc
7533	124	0.575	1.68
A15132	1750 peak	500 peak	1.1
A15227	200	0.3	2.025
A15235	200	0.05	3.225

SCALE 0 5 Inches

VARACTOR-TUNED OSCILLATOR



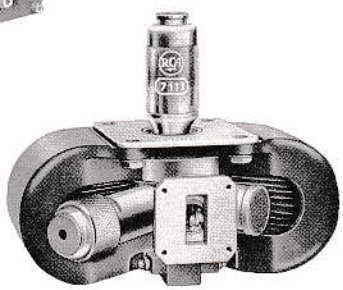
A15314

Type No. ■	Typical Operating Conditions		
	Plate Volts	Useful Power Output Watts	Frequency Gc
A15314	125	0.2	1.88

RCA MAGNETRONS
(For Pulsed-Oscillator Service)

TYPICAL RCA MAGNETRONS*

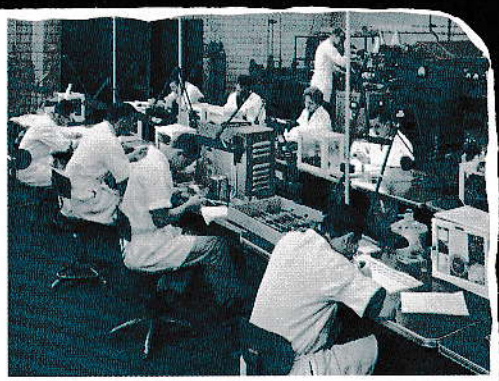
7008

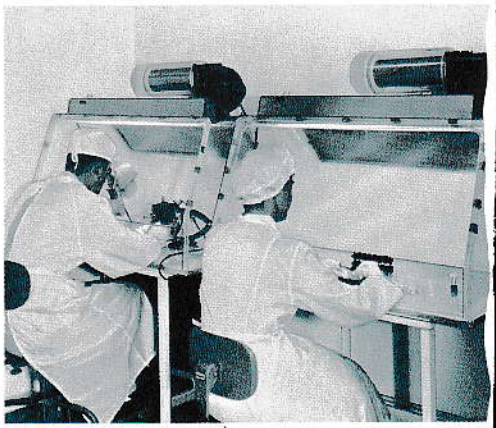


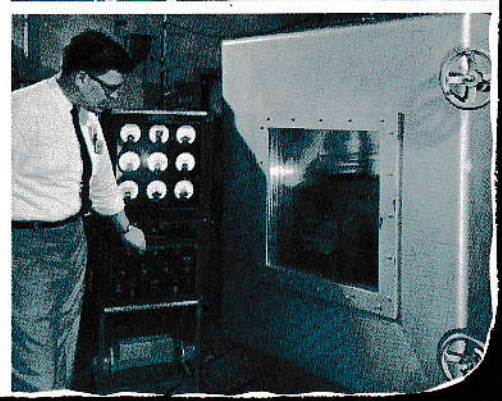
7111

Type No. ■	Frequency Range Gc	Min. Peak Power Output Kw	Max. Duty Factor	Type of Tuning Adjustment
6521	5.4 ±.02	75	0.001	None
7008	8.5-9.6	200	0.001	Servo
7111	8.5-9.6	200	0.001	Hand

* SCALE 0 5 10 Inches



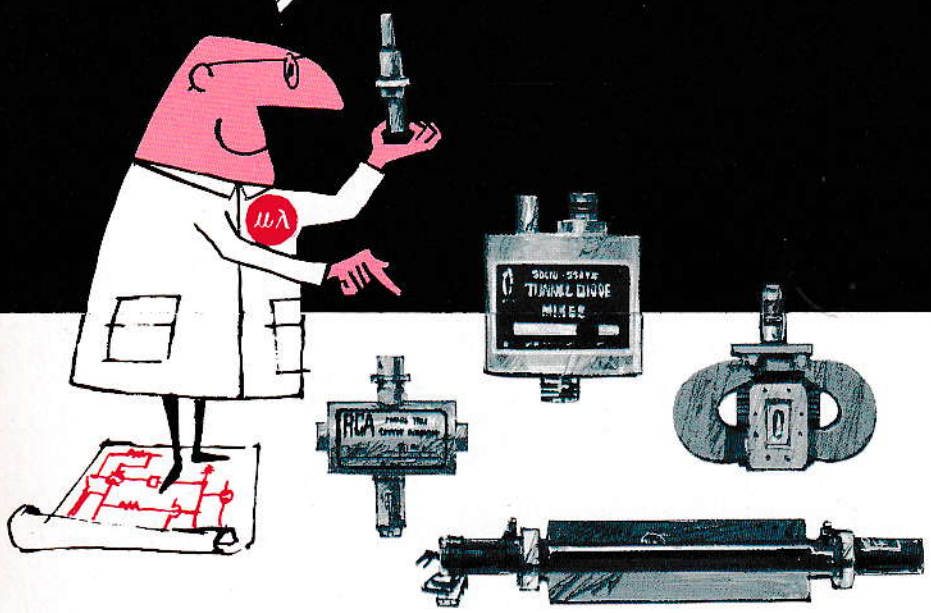




This selection of microwave devices demonstrates RCA's unique capability in the design and manufacture of components to meet your microwave systems requirements. More complete data are available on most of the types listed in this booklet and many other types.

Parameters of the devices shown, such as frequency, gain and power output are typical. Devices having other combinations of parameters and other configurations are available or can be developed.

Trained specialists in the operation and application of microwave devices in complex systems are ready to assist you. Inquiries are invited about new types or variants of prototypes.



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